CHOLECYSTOTOMY BY THE LUMBAR INCISION FOR DISTENDED GALL-BLADDER SIMULATING FLOATING KIDNEY.[1]

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THE case, the report of which is given herewith, came under my care during my last term of hospital service. The points of interest which it presents appear to make it worthy of permanent record.

A. S., married, æt. 29 years, the mother of four children, the last 2 years old, was admitted into the surgical ward of St. Agnes' Hospital, March, 7, 1889, with the following history taken by the resident physician: Seven months ago, while washing and pouring water from a tub, she strained herself, and at night, after going to bed, noticed a tumor situated in the right inguinal region. It caused her intense pain, which was relieved in the erect position and on walking about. On lying on the right side the tumor falls backward, and in the erect position it falls into the pelvis. Is unable to lie on the left side, on account of dragging and pain caused by the mass. Complains of pain in the right renal region. Micturition frequent. In the evening œdema of the feet and legs is present, and disappears during the night. Dyspnœa on ascending stairs. Examination by the resident physician showed heart, lungs, nervous and digestive systems in good condition.

The patient was sent into the hospital by her physician with the diagnosis of floating kidney, and with the request that an operation be performed for her relief. A few days after her admission an examination was made in the presence of her physician. At that time a tumor about the size of the kidney, with a round extremity and surface, could be distinctly felt one inch and a half to the right of the median line

[1]Read before the American Surgical Association, May, 1889.

and about the junction of the umbilical and hypogastric regions. It was freely movable in all directions. An examination of the right lumbar region was made, and it was found that a distinct depression existed over the position of the right kidney quite in contrast to the normal fullness of the left side. Deep palpation did not reveal the presence of the organ. While the physical signs indicated the tumor to be a dislocated kidney, its configuration, characterized by the marked roundish extremity, made the diagnosis doubtful to me. The patient was returned to the ward for further examination of her case, and the resident physician was requested to make an analysis of the urine; he reported that it contained blood, but was otherwise normal. The patient complained, during this period of observation, of pain in the right lumbar region, which she stated she had suffered from since the discovery of the tumor, and the temperature record showed distinct quotidian variations from $99^{4}/_{10}$ to $100^{6}/_{10}$ and 99 to $100^{4}/_{10}°$. About 4 P. M. chilly sensations occurred, followed by febrile movements. At the urgent request of the patient, I decided to perform an operation of exploration, being still uncertain as to the exact nature of the tumor. With a view to its fixation if it should prove to be a floating kidney, I made an incision in the right lumbar region, from the eleventh rib to the crest of the ilium, exposing the position of the kidney. After section of the overlying structures the position was reached and found to be unoccupied by the organ. An assistant was now requested to make pressure on the abdominal wall over the growth, in order to push it into the wound. As this was done the kidney was felt, uncovered, and grasped; the capsule was incised, separated partially by dissection, and two catgut sutures introduced to fasten the organ to the edges of the wound. A further exploration of the abdominal cavity revealed the presence of a tumor which was found to occupy the position of the growth which had been so distinctly outlined before the operation. Pressure on this tumor brought it, covered with the parietal peritoneum, into the wound below the kidney. On incising the peritoneum, the tumor was seized and fully exposed. An examination left no doubt as to its being a distended gall-bladder. A small trocar and canula were used to evacuate its contents, which consisted of three ounces of biliary pus. The fundus was now incised and a bullet-probe introduced into the cyst, which, after passing to the extent of six inches, came into contact with a calculus occupying its neck; this was found to be firmly impacted, and with the forceps at hand, could not be dislodged; it was, therefore, crushed, and the debris pushed into the intestine, the freedom of the passage being announced by passage of intes-

tinal gas. The gall-cyst was thoroughly washed out and fastened by silk sutures to the lower portion of the lumbar incision just above the crest of the ilium, being secured at this point without tension. A drainage tube was placed in position, the remaining portion of the wound was sutured, and dressings were applied. With the exception of tympany, which yielded to saline purges, enemata, and rectal intubation, no untoward symptoms presented themselves, and the patient made a prompt recovery. For a period of two and a half months the fistulous opening continued to give passage to a small quantity of fluid mixed with bile. At the end of that time it closed, leaving the entire wound in complete repair. The patient has returned to the performance of her household duties in the enjoyment of good health.

The operation made two points clear: First, that the kidney, although displaced, did not form the tumor which occupied the position lower down in the abdominal cavity; and second, that when the distended gall-bladder occupies the position described in the above case, it is practicable to form a biliary fistula by the lumbar incision. With regard to the position occupied by the tumor, a statement made by the patient subsequent to the operation gives information of value. This information was to the effect that when first noticed, three weeks prior to the efforts made in lifting the wash-tub, the tumor was in the upper part of the abdomen, on the right side, in a position corresponding to the epigastric and right hypochondriac regions. On the day in which the strain was felt, the tumor changed its position to that occupied by it when she entered the hospital.

Drs. Musser and Keen (*American Journal of the Medical Sciences*, October, 1884), as the result of the study of the thirty-five cases collected by them, state that the location of the distended gall-bladder differed with the age of its development. Early in the development it is found in the right hypochondrium; later, it may occupy a position in the lumbar, hypogastric or iliac region. In one case the gall-bladder was contained in the sac of a hernia. The change of position from the hypochondriac region, its normal position, takes place gradually if it occurs in connection with the increase in size of the tumor. Normally the upper surface of the body of the gall-bladder is connected by areolar tissue and vessels to the surface of the liver,

and the gall-bladder is "held in position by the peritoneum which, in the majority of cases, passes over its under surface, but the serous membrane occasionally invests it, when it then is connected to the liver by a kind of mesentery." In the present case it occurred, according to the history given by the patient, suddenly and as the result of violent effort. The effort made undoubtedly detached the distended sac from its connection with the liver, the rupture of the connecting tissues giving rise to the severe pain experienced by the patient at the time and for some time subsequently. In these cases of marked displacement of the distended gall-bladder it would seem probable that the mesenteric attachment to the liver existed, which permitted the wide separation of the sac from its normal position and gave such free and extended mobility as was present in the case reported—falling into the pelvis when the patient was in the erect position.

The literature of hepatic disease shows that the differentiation of floating kidney and enlarged, mobile and displaced gall-bladder has not, in numerous instances, been free from difficulty. One case is reported (*London Lancet*, March 28, 1885, p. 563) in which the right kidney was explored by lumbar incision for supposed renal calculus. At the operation the calculus was not detected, but the gall-cyst was found as low down as the groin, containing a stone as large as a pigeon's egg. This was removed by an incision, and the edges were sutured to the wound in the lumbar region, the first instance, so far as I know, of the performance of cholecystotomy by the lumbar incision. Death ensued in four days, and, at the autopsy, a renal calculus was found in the pelvis of the right kidney. Mr. Wright, the surgeon who operated in this case, comments upon the co-existence of renal and biliary calculi as recorded by Murchison and others. The positive opinion of the family physician in the present case, confirmed subsequently by another physician who examined the patient, indicates that the symptoms of kidney displacement were sufficiently marked to attract attention. The pain in the right lumbar region, the absence of renal dullness on percussion, and the presence of hæmaturia, were all symptoms confirmatory of renal trouble. The latter symptom, however, belonged to a group which at the

time escaped correct interpretation—those indicating a condition of cholelithiasis, the most marked symptoms of which were the quotidian febrile exacerbations. Langenbuch (*Med. Chronicle*, 1887) directs attention in his remarks upon the pathology of cholelithiasis, to the occurrence of a form of intermittent fever as a consequence of chronic inflammatory processes in the bile-ducts and the tendency to hæmorrhages associated with the affection.

The successful termination which occurred in the above case is an evidence of the comparative freedom from risk in operations of magnitude upon the organs of the abdomen under modern surgical methods. Free manipulation of the kidney with splitting and dissection of its capsule, combined with section of the peritoneum, incision of the distended gall-cyst, crushing of the stone, and pushing the debris into the intestine, were procedures which the patient submitted to with very little constitutional disturbance. Further illustration is afforded of the value of cholecystotomy with the formation of a fistula over the operation of cholecystectomy in cases of empyema of the gall-bladder. The simple character of the operation must commend it as presenting a minimum degree of risk. The removal of the impacted gall-stone by crushing and pushing the debris into the intestine, is a method which should be employed in preference to its removal by incision of the duct. In doing this, care should be taken to avoid rough manipulation, lest injury be inflicted upon the walls of the duct.